



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,624	10/27/2000	Barry Allan Fisher	8964.72/SU1	4935
23552	7590	08/13/2009		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER PERUNGAVOOR, SATHYANARAYA V	
			ART UNIT	PAPER NUMBER
			2624	
			MAIL DATE	DELIVERY MODE
			08/13/2009 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/698,624

**Applicant(s)**

FISHER ET AL.

**Examiner**

SATH V. PERUNGAVOOR

**Art Unit**

2624

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 and 45-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Applicant(s) Response to Official Action***

- [1] The response filed on June 3, 2009 has been entered and made of record.

### ***Response to Arguments***

- [2] Presented arguments have been fully considered but are held unpersuasive. Examiner's response to the presented arguments follows below.

#### **Claim Rejections - 35 USC § 103**

##### *Summary of Arguments:*

Applicant argues that SFS2000 is not (1) a portable handheld device and (2) does not provide a handle portion to be held by a single hand of an operator and the apparatus operated via the user interface using the same hand during image capture of the fingerprint. [Remarks: page 16, para. 4 and page 15, para. 1].

##### *Examiner's Response:*

Examiner respectfully disagrees. Examiner contends that (1) SFS2000 is a portable handheld device because another SFS 2000 NPL cited by the applicant on 08/16/2005 at page 1, lines 1-2 describes SFS2000 as a portable handheld device. And (2) SFS2000 does provide a handle portion to be held by a single hand of an operator because the long stem is clearly a handle. Also, the apparatus can be operated via the user interface (i.e. GUI) using the same hand during image capture of the fingerprint. See SFS 2000 NPL cited by the applicant on 10/11/2007 at page 2, paras. 2-3.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[3] Claims 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Diehl et al. (“Diehl”) [US 6,317,544].

Regarding claim 29, Diehl meets the claim limitations, as follows:

A method of real-time identification and verification of the identity of a person comprising the following steps [*abstract*]: capturing a facial image of the person at a portable handheld device (*i.e.* 70) while the portable handheld device is being grasped (*i.e. the unit 70 has the capability of being grasped*) by an operator of the portable handheld device [*55 on fig. 6; col. 8, ll. 28-30*]; storing the facial image in temporary data storage (*i.e.* RAM) of the portable handheld device [*col. 7, ll. 17-20*]; transmitting the facial (*i.e. photograph*) image to a central processor for processing [*col. 8, ll. 31-40*]; processing the transmitted facial image to determine if there is matching facial information (*i.e. identity verification*) in central data storage [*col. 8, ll. 45-65*]; receiving data from the central processor relating to the processed facial image [*col. 8, ll. 65-67*]; and displaying the data received on a display of the portable handheld device [*col. 12, ll. 18-22*].

Regarding claim 30, Diehl meets the claim limitations, as follows:

The method of claim 29 wherein the step of capturing a facial image *may be* performed in varying illumination conditions ranging from intense illumination to total darkness [col. 7, ll. 17-29: *Claim does not disclose what causes capture in varying illumination conditions, a camera/ sensor will capture in varying illumination conditions, though the quality will be poor.*].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[4] Claims 31-34, 36, 39 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of SFS 2000 (cited by the applicant on 10/11/2007).

Regarding claim 31, Diehl meets the claim limitations, as follows:

A method of real-time identification and verification of the identity of a person comprising the steps of [abstract]: capturing an image of a fingerprint of the person at a portable handheld device while the portable handheld device is being grasped by an operator of the portable handheld device (*i.e. the unit 70 has the capability of being grasped*) [60 on fig. 6; col. 8, ll. 20-25]; storing the fingerprint image in the data storage (*i.e. RAM*) of the portable handheld device [col. 7, ll. 17-20]; transmitting the fingerprint

image to a central processor for processing [col. 8, ll. 45-65]; processing the transmitted fingerprint image to determine if there is matching fingerprint information (*i.e. identity verification*) in central data storage [col. 8, ll. 45-65]; receiving data from the central processor relating to the processed fingerprint image at the portable handheld device [col. 8, ll. 65-67]; and displaying the data received on a display of the portable handheld device [col. 12, ll. 18-22].

Diehl does not explicitly disclose the following claim limitations (emphasis added):

(1) Device comprising a housing including a handle portion having a distal end and a proximal end and a user interface at the distal end of the handle portion, while the handle portion of the portable handheld device is grasped by a single hand by an operator of the portable handheld device and the apparatus being operated via the user interface during image capture of the fingerprint

However, in the same field of endeavor SFS2000 discloses the deficient claim limitations, as follows:

A housing (*i.e. figure on page 1*) having including a handle portion having a distal end (*i.e. far end*) and a proximal end (*i.e. near end*) and a user interface at the distal end (*i.e. touch screen*) of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator (*i.e. this feature is inherent in the structure*) and the apparatus operated via the user interface using the same hand during image capture of the fingerprint (*i.e. this feature is inherent in the structure*) and the finger receiving surface (*i.e. fingerprint scanner*) located at the distal end of the handle portion [page 1]

Diehl and SFS2000 are combinable because they are from the same field of remote fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl with SFS2000 and provide a specific type of handle, the motivation being enable the system to be compact [*page 1, para. 2*].

Regarding claim 32, Diehl meets the claim limitations, as follows:

The method of claim 31, wherein the finger receiving surface captures a fingerprint image in varying illumination conditions ranging from bright sunlight to total darkness [*col. 7, ll. 17-29: Claim does not disclose what causes capture in varying illumination conditions, a camera/sensor will capture in varying illumination conditions, though the quality will be poor.*].

Regarding claim 33, Diehl meets the claim limitations, as follows:

The method of claim 31, wherein the step of capturing a fingerprint image includes at least one of the steps of: positioning a finger on a finger receiving surface and scanning a rolled fingerprint or scanning a slap imprint of the finger [*col. 8, ll. 20-26; slap*].

Regarding claim 34, Diehl meets the claim limitations, as follows:

The method of claim 31 further including the step of capturing a facial image [*col. 8, ll. 28-30*] and wireless transmitting the captured facial image from the portable handheld device to a central processor [*col. 8, ll. 37-40; col. 10, ll. 3-5*].

Regarding claim 36, Diehl meets the claim limitations, as follows:

A portable apparatus for identification and verification of a fingerprint (*i.e.* 70) comprising: a housing (*i.e.* 75) [fig. 5]; a user interface for the housing, the user interface including at least a display (*i.e.* 95) and a finger-receiving surface (*i.e.* 60) to receive an image of a fingerprint of a subject while the apparatus is grasped (*i.e. the unit 70 has the capability of being grasped*) by an operator of the portable handheld device [fig. 6]; a sensor (*i.e. inherent in a fingerprint scanner*) positioned within the housing to capture a fingerprint image from the finger receiving surface (*i.e.* 60) [col. 8, ll. 20-26]; a processor positioned within the housing and electrically connected to the sensor to process the captured fingerprint image [col. 8, ll. 26-28; col. 11, ll. 41-50]; a transmitter positioned within the housing and electrically connected to the processor to transmit a fingerprint image to a central processor for identification and verification [col. 10, ll. 3-5; col. 8, ll. 45-64]; and wherein the processor is configured to receive data from the central processor relating to the processed fingerprint image [col. 8, ll. 65-67] and the display is configured to display the data to the operator [col. 12, ll. 18-22].

Diehl does not explicitly disclose the following claim limitations (emphasis added):

(1) Device comprising a housing including a handle portion having a distal end and a proximal end and a user interface at the distal end of the handle portion, while the handle portion of the portable handheld device is grasped by a single hand by an operator of the portable handheld device and the apparatus being operated via the user interface during image capture of the fingerprint



However, in the same field of endeavor SFS2000 discloses the deficient claim limitations, as follows:

A housing (*i.e. figure on page 1*) having including a handle portion having a distal end (*i.e. far end*) and a proximal end (*i.e. near end*) and a user interface at the distal end (*i.e. touch screen*) of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator (*i.e. this feature is inherent in the structure*) and the apparatus operated via the user interface using the same hand during image capture of the fingerprint (*i.e. this feature is inherent in the structure*) and the finger receiving surface (*i.e. fingerprint scanner*) located at the distal end of the handle portion [page 1]

Diehl and SFS2000 are combinable because they are from the same field of remote fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl with SFS2000 and provide a specific type of handle, the motivation being enable the system to be compact [page 1, para. 2].

Regarding claim 39, all claimed limitations are set forth and rejected as per discussion for claim 36.

Regarding claim 45, Diehl meets the claim limitations, as follows:

A method of real-time identification and verification of the identity of a person comprising the following steps [abstract]: capturing an image of a fingerprint of the person at a portable handheld system while the portable handheld system is grasped

(i.e. the unit 70 has the capability of being grasped) by an operator of the portable handheld system [60 on fig. 6; col. 8, ll. 20-25]; processing (i.e. quality analysis) the captured fingerprint image at the portable handheld system [col. 8, ll. 26-28]; transmitting the captured fingerprint image from the portable handheld system to a central processor for processing [col. 8, ll. 45-65]; processing the transmitted captured fingerprint image to determine if there is matching fingerprint information (i.e. identity verification) in central data storage [col. 8, ll. 45-65]; receiving data from the central processor relating to a processed fingerprint image [col. 8, ll. 65-67]; and displaying the data received on a display of the portable handheld system [col. 12, ll. 18-22].

Diehl does not explicitly disclose the following claim limitations (emphasis added):

(1) Device comprising a housing including a handle portion having a distal end and a proximal end and a user interface at the distal end of the handle portion, while the handle portion of the portable handheld device is grasped by a single hand by an operator of the portable handheld device and the apparatus being operated via the user interface during image capture of the fingerprint

However, in the same field of endeavor SFS2000 discloses the deficient claim limitations, as follows:

A housing (i.e. figure on page 1) having including a handle portion having a distal end (i.e. far end) and a proximal end (i.e. near end) and a user interface at the distal end (i.e. touch screen) of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator (i.e. this feature is inherent in the structure) and the apparatus operated via the user interface using the same hand during image capture of the fingerprint (i.e. this

*feature is inherent in the structure*) and the finger receiving surface (*i.e. fingerprint scanner*)

located at the distal end of the handle portion [page 1]

Diehl and SFS2000 are combinable because they are from the same field of remote fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl with SFS2000 and provide a specific type of handle, the motivation being enable the system to be compact [page 1, para. 2].

Regarding claim 46, Diehl meets the claim limitations, as follows:

The method of claim 45 wherein the data includes a facial image [col. 8, ll. 28-30].

Regarding claim 47, all claimed limitations are set forth and rejected as per discussion for claim 36.

[5] Claims 1-4, 6-9, 11, 15 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine152”) [US 5,222,152] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view SFS 2000 (cited by the applicant on 10/11/2007).

Regarding claim 1, Diehl discloses the following claim limitations:

A method of real-time identification and verification of the identity of a person comprising the following steps [col. 1, ll. 10-12]: capturing an image of a fingerprint of the person at a portable handheld device (*i.e. 70*) while the portable handheld

device is grasped (*i.e. the unit 70 has the capability of being grasped*) with one hand by an operator of the portable handheld device [fig. 6; col. 8, ll. 20-26]; processing (*i.e. quality analysis*) the captured fingerprint image at the portable handheld device (*i.e. 70*) to determine if the fingerprint image meets a predetermined quality level (*i.e. sufficient quality*) [col. 8, ll. 26-28]; storing fingerprint images that satisfy the predetermined fingerprint quality level in temporary data storage (*i.e. RAM*) of the portable handheld device (*i.e. 70*) [col. 7, ll. 17-20; col. 8, ll. 26-28]; processing (*i.e. extraction and compression*) the fingerprint image at the portable handheld device [col. 11, ll. 46-47]; after processing (*i.e. extraction and compression*) the fingerprint image, transmitting fingerprint images that satisfy the predetermined fingerprint quality level (*i.e. sufficient quality*) to a central processor (*i.e. remote processing center*) for processing [col. 8, ll. 26-28 and 35-40]; processing the transmitted fingerprint images to determine if there is matching fingerprint information (*identity verification*) in central data storage (*i.e. database*) [col. 8, ll. 49-64; abstract]; and receiving data from the central processor relating to the processed fingerprint images at the portable handheld device [col. 8, ll. 65-67]; and displaying the data received on a display of the portable handheld device [col. 12, ll. 18-22].

Diehl does not explicitly disclose the following claim limitations (emphasis added):

(1) Device comprising a housing including a handle portion having a distal end and a proximal end and a user interface at the distal end of the handle portion, while the handle portion of the portable handheld device is grasped by a single hand by an operator of the portable handheld device and the apparatus being operated via the user interface during image capture of the fingerprint

(2) Enhancing the fingerprint image.

However, in the same field of endeavor Fishbine152 discloses the deficient claim limitations, as follows:

Enhancing the fingerprint image [*Fishbine414: abstract*].

However, in the same field of endeavor SFS2000 discloses the deficient claim limitations, as follows:

A housing (*i.e. figure on page 1*) having including a handle portion having a distal end (*i.e. far end*) and a proximal end (*i.e. near end*) and a user interface at the distal end (*i.e. touch screen*) of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator (*i.e. this feature is inherent in the structure*) and the apparatus operated via the user interface using the same hand during image capture of the fingerprint (*i.e. this feature is inherent in the structure*) and the finger receiving surface (*i.e. fingerprint scanner*) located at the distal end of the handle portion [*page 1*]

Diehl, Fishbine152 and SFS2000 are combinable because they are from the same field of remote fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl with Fishbine152 to enhance the fingerprint image, the motivation being reduce the errors in a fingerprint image [*Fishbine414: col. 3, ll. 1-8*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl and Fishbine152 with SFS2000 and provide a

specific type of handle, the motivation being enable the system to be compact [page 1, para. 2].

Regarding claim 2, Diehl meets the claim limitations, as follows:

The method of claim 1, wherein the step of capturing a fingerprint image includes the steps of: positioning the finger on a finger receiving surface of the portable device handheld device [col. 8, ll. 20-26]; and scanning a slap imprint of the finger [col. 8, ll. 20-26].

Regarding claim 3, Fishbine152 meets the claim limitations, as follows:

The method of claim 2, wherein the finger receiving surface captures fingerprint images in varying illumination conditions ranging from bright sunlight to total darkness [col. 3, ll. 54-59: *Leds inherently enable this feature.*].

Regarding claim 4, Fishbine152 meets the claim limitations, as follows:

The method of claim 2, wherein the step of capturing a fingerprint image includes the step of: positioning the finger on a finger receiving surface of the portable handheld device [Fishbine152: col. 3, ll. 15-18]; and scanning a rolled fingerprint [Fishbine414: col. 12, ll. 25-27].

Regarding claim 6, Diehl meets the claim limitations, as follows:

The method of claim 1, wherein the step of capturing a fingerprint image includes the step of determining the image quality of the fingerprint image captured [col. 8, ll. 26-28].

Regarding claim 7, Fishbine152 meets the claim limitations, as follows:

The method of claim 1, wherein the step of transmitting fingerprint images includes the steps of: a wireless transmission from the portable handheld device (*i.e.* 10) to a wireless mobile unit for processing [col. 3, ll. 25-36; col. 4, ll. 42-45]; and wireless transmission from the wireless mobile unit to the central processor (*i.e.* central facility) for comparison of the fingerprint images transmitted to a plurality of previously stored images to determine identity and background information of the person [col. 4, ll. 45-51].

Regarding claim 8, Fishbine152 meets the claim limitations, as follows:

The method of claim 1, further including the step of capturing a facial image (*"mug shot"*) and transmitting the captured facial image to a central processor [col. 4, ll. 52-64], wherein the step of transmitting the facial image to the central processor includes the steps of: a wireless transmission from the portable handheld device to a wireless mobile unit for processing [col. 3, ll. 25-36]; and wireless transmission from the wireless mobile unit to the central processor for comparison of the facial image transmitted to a plurality of previously stored facial images to determine identity and background information of the person [col. 4, ll. 42-51].

Regarding claim 9, Fishbine152 meets the claim limitations, as follows:

The method of claim 1, further including the steps of recording, displaying, and transmitting live video images captured [col. 4, ll. 30-40 and 52-54], wherein the step of transmitting the live video images captured includes the steps of: a wireless transmission of the live video images captured from the portable handheld device to a wireless mobile unit for processing [col. 3, ll. 25-36]; and wireless transmission of the live video images captured from the wireless mobile unit to the central processor for storage in central data storage [col. 4, ll. 42-51 and 61-col. 5, l. 9].

Regarding claim 11, Diehl meets the claim limitations, as follows:

The method of claim 1 further including the step of capturing identification data from an external source (*i.e.* 80) [fig. 6; col. 8, ll. 31-35].

Regarding claim 15, Fishbine152 meets the claim limitations, as follows:

The method of claim 1 including the step of transmitting a signal for emergency assistance [col. 4, ll. 40-42: *Discloses a DTMF keypad and it is notoriously well known that 911 generates an emergency signal. Official Notice*].

Regarding claim 28, Fishbine152 meets the claim limitations, as follows:

The method of claim 1, wherein enhancing the fingerprint image comprises at least one of the following steps: thresholding the image; enhancing contrast of the image; enhancing sharpness of the image (*i.e. directional filtering*); and inverting the image [Fishbine414: abstract].



**[6]** Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine152”) [US 5,222,152] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view SFS 2000 (cited by the applicant on 10/11/2007) further in view of Arndt et al. (“Arndt”) [US 4,917,987].

Regarding claim 5, Diehl, Fishbine152 and SFS2000 disclose the claim limitations as set forth in claim 1.

Diehl, Fishbine152 and SFS2000 do not explicitly disclose the following claim limitations:

The method of claim 1, wherein the step of capturing a fingerprint image comprises scanning a latent imprint.

However, in the same field of endeavor Arndt discloses the deficient claim limitations, as follows:

The method of claim 1, wherein the step of capturing a fingerprint image comprises scanning a latent imprint [*abstract, fig. 1*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl, Fishbine152 and SFS2000 with Arndt to scan latent fingerprints, the motivation being to record FBI fingerprint cards [*col. 1, ll. 25-38*].

**[7]** Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine152”) [US 5,222,152] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view SFS 2000 (cited by the applicant on 10/11/2007) further in view of Fuller et al. (“Fuller”) [US 4,843,377].

Regarding claim 10, Diehl, Fishbine152 and SFS2000 disclose the following claim limitations:

The method of claim 1 further including the steps of recording, playing back, displaying, analyzing, and transmitting audio information captured [col. 5, ll. 1-10], wherein the step of transmitting the audio information captured includes the steps of: a wireless transmission of the audio information captured from the portable handheld device to a wireless mobile unit for processing [col. 1, ll. 1-10; col. 3, ll. 25-35]; and wireless transmission of the audio information from the wireless mobile unit to the central processor [col. 4, ll. 42-51 and 61-col. 5, l. 9].

Diehl, Fishbine152 and SFS2000 do not explicitly disclose the following claim limitations (emphasis added):

comparison of the audio information transmitted to a plurality of previously stored voice files to determine identity and background information of the person

However, in the same field of endeavor Fuller discloses the deficient claim limitations, as follows:

comparison of the audio information (*i.e. voice print*) transmitted to a plurality of previously stored voice files to determine identity and background information of the person [col. 7, ll. 6-8 and 31-36].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl, Fishbine152 and SFS2000 with Fuller incorporate voice based identification, the motivation being provide high probability unique identification [col. 6, ll. 54-57].

[8] Claims 1 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine403”) [US 5,467,403] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view SES 2000 (cited by the applicant on 10/11/2007).

Regarding claim 1, Diehl discloses the following claim limitations:

A method of real-time identification and verification of the identity of a person comprising the following steps [col. 1, ll. 10-12]: capturing an image of a fingerprint of the person at a portable handheld device (*i.e.* 70) while the portable handheld device is grasped (*i.e. the unit 70 has the capability of being grasped*) with one hand by an operator of the portable handheld device [col. 8, ll. 20-26]; processing (*i.e. quality analysis*) the captured fingerprint image at the portable handheld device (*i.e.* 70) to determine if the fingerprint image meets a predetermined quality level (*i.e. sufficient quality*) [col. 8, ll. 26-28]; storing fingerprint images that satisfy the predetermined fingerprint quality level in temporary data storage (*i.e. RAM*) of the portable handheld device (*i.e.* 70) [col. 7, ll. 17-20; col. 8, ll. 26-28]; processing (*i.e. extraction and compression*) the fingerprint image at the portable handheld device [col. 11, ll. 46-47]; after processing (*i.e. extraction and compression*) the fingerprint image, transmitting fingerprint images that satisfy the predetermined fingerprint quality level (*i.e. sufficient quality*) to a central processor (*i.e. remote processing center*) for processing [col. 8, ll. 26-28 and 35-40]; processing the transmitted fingerprint images to determine if there is matching fingerprint information (*identity verification*) in central data storage (*i.e.*

*database*) [col. 8, ll. 49-64; *abstract*]; and receiving data from the central processor relating to the processed fingerprint images at the portable handheld device [col. 8, ll. 65-67]; and displaying the data received on a display of the portable handheld device [col. 12, ll. 18-22].

Diehl does not explicitly disclose the following claim limitations (emphasis added):

- (1) Device comprising a housing including a handle portion having a distal end and a proximal end and a user interface at the distal end of the handle portion, while the handle portion of the portable handheld device is grasped by a single hand by an operator of the portable handheld device and the apparatus being operated via the user interface during image capture of the fingerprint
- (2) Enhancing the fingerprint image.

However, in the same field of endeavor Fishbine403 discloses the deficient claim limitations, as follows:

Enhancing the fingerprint image [Fishbine414: *abstract*].

However, in the same field of endeavor SFS2000 discloses the deficient claim limitations, as follows:

A housing (*i.e. figure on page 1*) having including a handle portion having a distal end (*i.e. far end*) and a proximal end (*i.e. near end*) and a user interface at the distal end (*i.e. touch screen*) of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator (*i.e. this feature is inherent in the structure*) and the apparatus operated via the user interface using the same hand during image capture of the fingerprint (*i.e. this*

*feature is inherent in the structure*) and the finger receiving surface (*i.e. fingerprint scanner*)

located at the distal end of the handle portion [page 1]

Diehl, Fishbine403 and SFS2000 are combinable because they are from the same field of remote fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl with Fishbine403 to enhance the fingerprint image, the motivation being reduce the errors in a fingerprint image [Fishbine414: col. 3, ll. 1-8].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl and Fishbine403 with SFS2000 and provide a specific type of handle, the motivation being enable the system to be compact [page 1, para. 2].

Regarding claim 11, Fishbine403 meets the claim limitations, as follows:

The method of claim 1 further including the step of capturing identification data from an external source (*i.e. keypad 25*) [col. 4, ll. 15-18].

Regarding claim 12, Fishbine403 meets the claim limitations, as follows:

The method of claim 11, wherein the external source is an identification card having a magnetic strip bar code [col. 4, ll. 15-18].

Regarding claim 13, Fishbine403 meets the claim limitations, as follows:

The method of claim 11, wherein the external source is a smart card [*Smart cards are a notoriously well-known variation of identification cards. Official Notice is taken. See Smith US 6,012,636 at fig. 3a and col. 8, ll. 23-31*].

[9] Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine152”) [US 5,222,152] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view SFS 2000 (cited by the applicant on 10/11/2007) further in view of Fan [US 6,552,682].

Regarding claim 14, Diehl, Fishbine152 and SFS2000 disclose the claim limitations as set forth in claim 1.

Diehl, Fishbine152 and SFS2000 do not explicitly disclose the following claim limitations:

The method of claim 1 including the step of capturing geographical position and direction data.

However, in the same field of endeavor Arndt discloses the deficient claim limitations, as follows:

The method of claim 1 including the step of capturing geographical position and direction data [*col. 3, ll. 13-18*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl, Fishbine152 and SFS2000 with Fan to incorporate position and direction capture, the motivation being to provide direction to an intended destination [*col. 3, ll. 13-18*].

[10] Claims 35 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view SFS 2000 (cited by the applicant on 10/11/2007) further in view of Arndt et al. (“Arndt”) [US 4,917,987].

Regarding claim 35, Diehl and SFS2000 disclose the claim limitations as set forth in claim 31.

Diehl and SFS2000 do not explicitly disclose the following claim limitations:

The method of claim 31, wherein the step of capturing a fingerprint comprises scanning a latent imprint using a photo capture sensor of the portable handheld device.

However, in the same field of endeavor Arndt discloses the deficient claim limitations, as follows:

The method of claim 1, wherein the step of capturing a fingerprint comprises scanning a latent imprint using a photo capture sensor [*abstract, fig. 1*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl and SFS2000 with Arndt to scan latent fingerprints, the motivation being to record FBI fingerprint cards [*col. 1, ll. 25-38*].

Regarding claim 40, Diehl and SFS2000 disclose the following claim limitations:

The portable apparatus of claim 36 further including a photo capture sensor to capture a facial image of the subject [*55 on fig. 6*].

Diehl and SFS2000 do not explicitly disclose the following claim limitations (emphasis added):

The portable apparatus of claim 36 further including a photo capture sensor to capture a facial image and a latent fingerprint alignment guide configured and arranged with respect to the photo capture sensor to obtain latent fingerprint images.

However, in the same field of endeavor Arndt discloses the deficient claim limitations, as follows:

A latent fingerprint alignment guide configured and arranged with respect to the photo capture sensor to obtain latent fingerprint images [*abstract, 10 on fig. 1*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl and SFS2000 with Arndt to scan latent fingerprints, the motivation being to record FBI fingerprint cards [*col. 1, ll. 25-38*].

Regarding claim 41, Arndt meets the claim limitations, as follows:

The portable apparatus of claim 40 wherein the alignment guide is removable [*10 on fig. 1*].

Regarding claims 42 and 43, all claimed limitations are set forth and rejected as per discussion for claim 41.

[11] Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view SFS 2000 (cited by the applicant on 10/11/2007) further in view of Fujieda et al. (“Fujieda”) [US 6,011,860].

Regarding claim 37, Diehl and SFS2000 disclose the claim limitations as set forth in claim 36.



Diehl and SFS2000 do not explicitly disclose the following claim limitations:

The portable apparatus of claim 36 further including a removable light baffle for preventing illumination sources to interfere with capturing the fingerprint image on the finger-receiving surface.

However, in the same field of endeavor Fujieda discloses the deficient claim limitations, as follows:

A removable light baffle (*i.e.* 21) for preventing illumination sources to interfere with capturing the fingerprint image on the finger-receiving surface [*fig. 4; col. 5, ll. 29-40*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl and SFS2000 with Fujieda to incorporate a light baffle, the motivation being to exclude external light [*col. 5, ll. 33-37*].

Regarding claim 38, Fujieda meets the claim limitations, as follows:

The portable apparatus of claim 37 wherein the baffle is arranged and configured to align (*i.e. groove*) a fingerprint with the finger receiving surface (*i.e. 23a*) such that fingerprint characteristics are properly located relative to the sensor [*fig. 4*].

[12] Claims 16-22, 24-27 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine403”) [US 5,467,403] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view of SFS 2000 (cited by the applicant on 10/11/2007).

Regarding claim 16, Diehl discloses the following claim limitations:

A portable apparatus for identification and verification of a fingerprint comprising [70 *on fig. 5*]; a housing (*i.e. 75*) that provides for operation and command of all functions of the apparatus [fig. 5; *col. 11, ll. 22-26*]; a user interface attached to the housing (*i.e. 75*) for data input (*i.e. 80*), display (*i.e. 95*), and receipt (*i.e. 60*), the user interface including at least a finger-receiving surface (*i.e. 60*) for receiving images of a fingerprint of a subject while the apparatus is being handheld by the operator (*i.e. 70 has this capability*) and buttons (*i.e. 80*) for data entry and command execution [figs. 5 and 6]; a sensor (*i.e. inherent in a scanner*) positioned within the housing (*i.e. 75*) for capturing the fingerprint images from the finger-receiving surface (*i.e. 60*) [figs. 5 and 6; *col. 11, ll. 10-26*]; a processor (*i.e. computing boards*) positioned within the housing (*i.e. 75*) and electrically connected to the sensor (*i.e. 60*) for processing the fingerprint images captured to determine if the fingerprint images captured meet a minimum fingerprint quality level [figs. 5 and 6; *col. 8, ll. 7-10*]; a transmitter (*i.e. 40*) positioned within the housing (*i.e. 75*) and electrically connected to the processor for transmitting fingerprint images to a central processor (*i.e. 10*) for identification and verification [*col. 10, ll. 1-5; col. 8, ll. 37-40*]; and a module (*i.e. imagemob.exe*) configured to operate within the processor for the processing (*i.e. extraction and compression*) of the fingerprint images prior to transmittal of the fingerprint images [*col. 11, ll. 46-47*];

Diehl does not explicitly disclose the following claim limitations (emphasis added):

A housing having including a handle portion having a distal end and a proximal end and a user interface at the distal end of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator and the apparatus operated via the user interface

using the same hand during image capture of the fingerprint and the finger receiving surface located at the distal end of the handle portion

A module configured to operate within the processor for the enhancement of the fingerprint images prior to transmittal of the fingerprint images.

However, in the same field of endeavor Fishbine403 discloses the deficient claim limitations, as follows:

A housing having an ergonomic handle formed thereon that is configured to be grasped with one hand by an operator and that provides for one hand operation and command of functions of the apparatus [Fishbine403: 57 and 54 on fig. 5]. Enhancing the fingerprint image [Fishbine414: abstract].

However, in the same field of endeavor SFS2000 discloses the deficient claim limitations, as follows:

A housing (*i.e. figure on page 1*) having including a handle portion having a distal end (*i.e. far end*) and a proximal end (*i.e. near end*) and a user interface at the distal end (*i.e. touch screen*) of the handle portion, wherein the handle portion and user interface portion are configured to allow the handle portion to be held by a single hand of an operator (*i.e. this feature is inherent in the structure*) and the apparatus operated via the user interface using the same hand during image capture of the fingerprint (*i.e. this feature is inherent in the structure*) and the finger receiving surface (*i.e. fingerprint scanner*) located at the distal end of the handle portion [page 1]

Dichl, Fishbine403 and SFS2000 are combinable because they are from the same field of remote fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl with Fishbine403 to enhance the fingerprint image and provide a handle, the motivation being reduce the errors in a fingerprint image [Fishbine414: col. 3, ll. 1-8] and enable the system to be carried [col. 2, ll. 3-17].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl and Fishbine403 with SFS2000 and provide a specific type of handle, the motivation being enable the system to be compact [page 1, para. 2].

Regarding claim 17, Diehl meets the claim limitations, as follows:

The portable handheld apparatus of claim 16, further including a module (*i.e.* *mrtcap16.dll*) within the processor that provides for the capture of the fingerprint images prior to transmittal [col. 11, ll. 41-44].

Regarding claim 18, Diehl meets the claim limitations, as follows:

The portable apparatus of claim 16, further including data storage (*i.e.* *RAM*) electrically connected to the sensor for storing the fingerprint images that meet a minimum fingerprint quality level [col. 7, ll. 17-20].

Regarding claim 19, Fishbine403 meets the claim limitations, as follows:

The portable apparatus of claim 16, including a removable baffle (*i.e.* 40) for preventing illumination sources to interfere with capturing the fingerprint images on the finger-receiving surface [fig. 5].

Regarding claim 20, Fishbine403 meets the claim limitations, as follows:

The portable apparatus of claim 16 including a recorder for recording and playing back audio and video information [col. 9, ll. 14-24].

Regarding claim 21, Fishbine403 meets the claim limitations, as follows:

The portable apparatus of claim 16 wherein the user interface includes a card reader for entry of identification data from smart cards or cards having magnetic strips [col. 4, ll. 15-18].

Regarding claim 22, Fishbine403 meets the claim limitations, as follows:

The portable apparatus of claim 16 wherein the user interface includes a bar code reader for entry of identification data [col. 4, ll. 15-18].

Regarding claim 24, Fishbine403 meets the claim limitations, as follows:

The portable apparatus of claim 16 including a wireless transmitter electrically connected to a single switch and the processor for transmitting a signal for emergency assistance when the single switch is engaged [col. 4, ll. 8-11: *Discloses a DTMF keypad and it is notoriously well known that 911 generates an emergency signal. It also well known that 911 can be programmed in to a single button. See Barker, III US 4,866,764, 14 on fig. 1. Official Notice*].

Regarding claim 25, Diehl meets the claim limitations, as follows:

The portable apparatus of claim 16 wherein the user interface includes a data entry device for entry of text or voice data [80 *on fig. 6, col. 8, ll. 31-35*].

Regarding claim 26, Fishbine403 meets the claim limitations, as follows:

The portable apparatus of claim 16 further including a latent fingerprint alignment guide [col. 3, ll. 55-60: *Latent fingerprints are captured with the video camera in the instant application. Hence the alignment is for the video camera capture, the limitation of latent fingerprint is merely intended use, since apparatus claim are patented for structure not function. Display in Fishbine403 aids in alignment.*].

Regarding claim 27, Diehl meets the claim limitations, as follows:

The portable apparatus of claim 16 wherein the transmitter is a wireless transmitter (*i.e. 40*) [col. 10, ll. 3-5].

Regarding claim 48, all claimed limitations are set forth and rejected as per discussion for claims 16 and 36.

[13] Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (“Diehl”) [US 6,317,544] in view of Fishbine et al. (“Fishbine403”) [US 5,467,403] which incorporates by reference Fishbine et al. (“Fishbine414”) [US 4,811,414] further in view of SFS 2000 (cited by the applicant on 10/11/2007) further in view of Fan [US 6,552,682].

Regarding claim 23, Diehl, Fishbine403 and SFS 2000 disclose the claim limitations as set forth in claim 16.

Diehl, Fishbine403 and SFS 2000 do not explicitly disclose the following claim limitations:

The portable apparatus of claim 16 including a GPS receiver electrically connected to the processor to provide for the capture of geographical position and direction data.

However, in the same field of endeavor Fan discloses the deficient claim limitations, as follows:

The portable apparatus of claim 16 including a GPS receiver electrically connected to the processor to provide for the capture of geographical position and direction data  
*[col. 3, ll. 13-25].*

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Diehl, Fishbine403 and SFS 2000 with Fan to incorporate position and direction capture, the motivation being to provide direction to an intended destination  
*[col. 3, ll. 13-18].*

### ***Conclusion***

**[14] THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Contact Information***

[15] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Matthew C. Bella whose telephone number is (571) 272-7778, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dated: August 13, 2009

/Sath V. Perungavoor/

Sath V. Perungavoor  
Primary Examiner, Art Unit 2624  
Telephone: (571) 272-7455